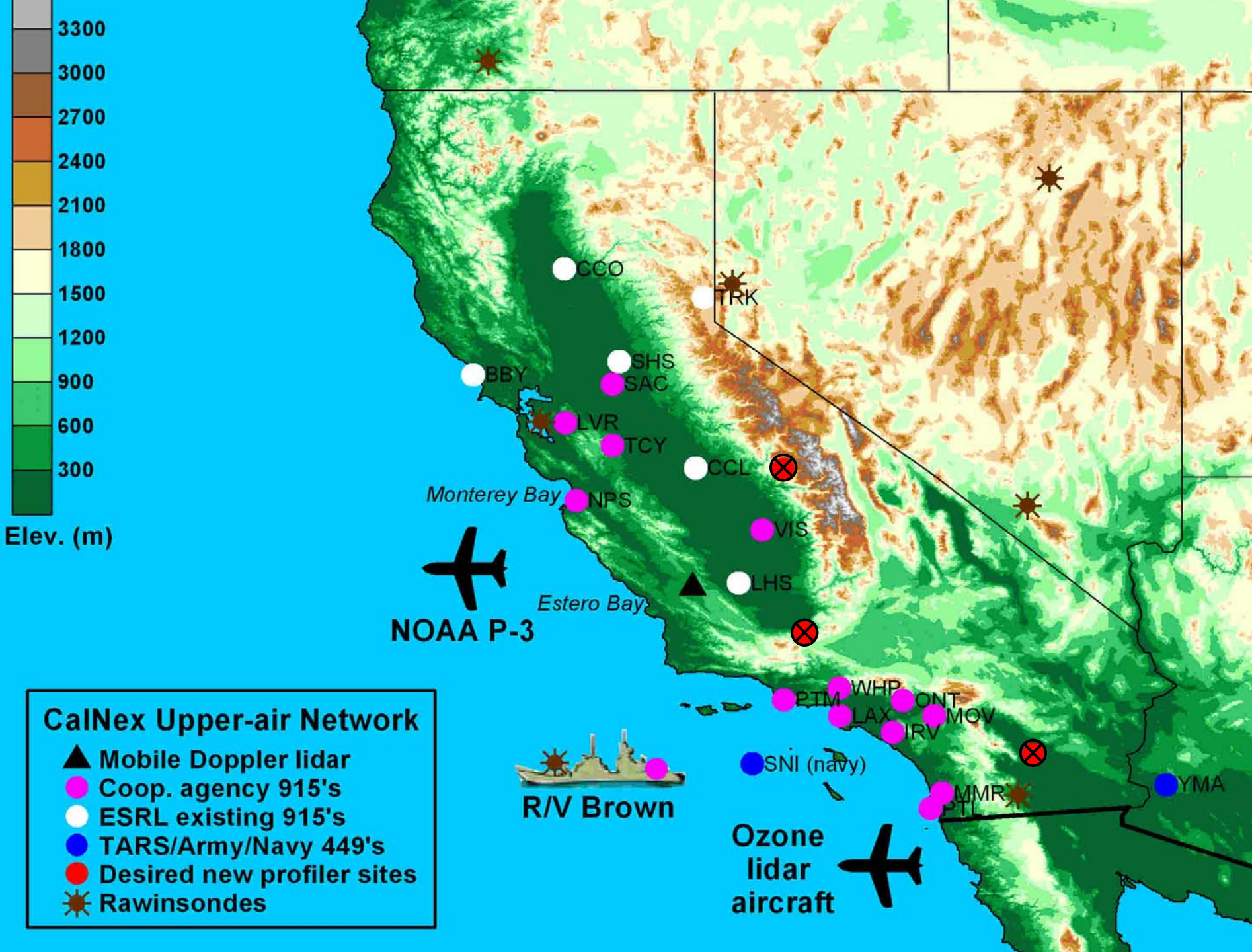


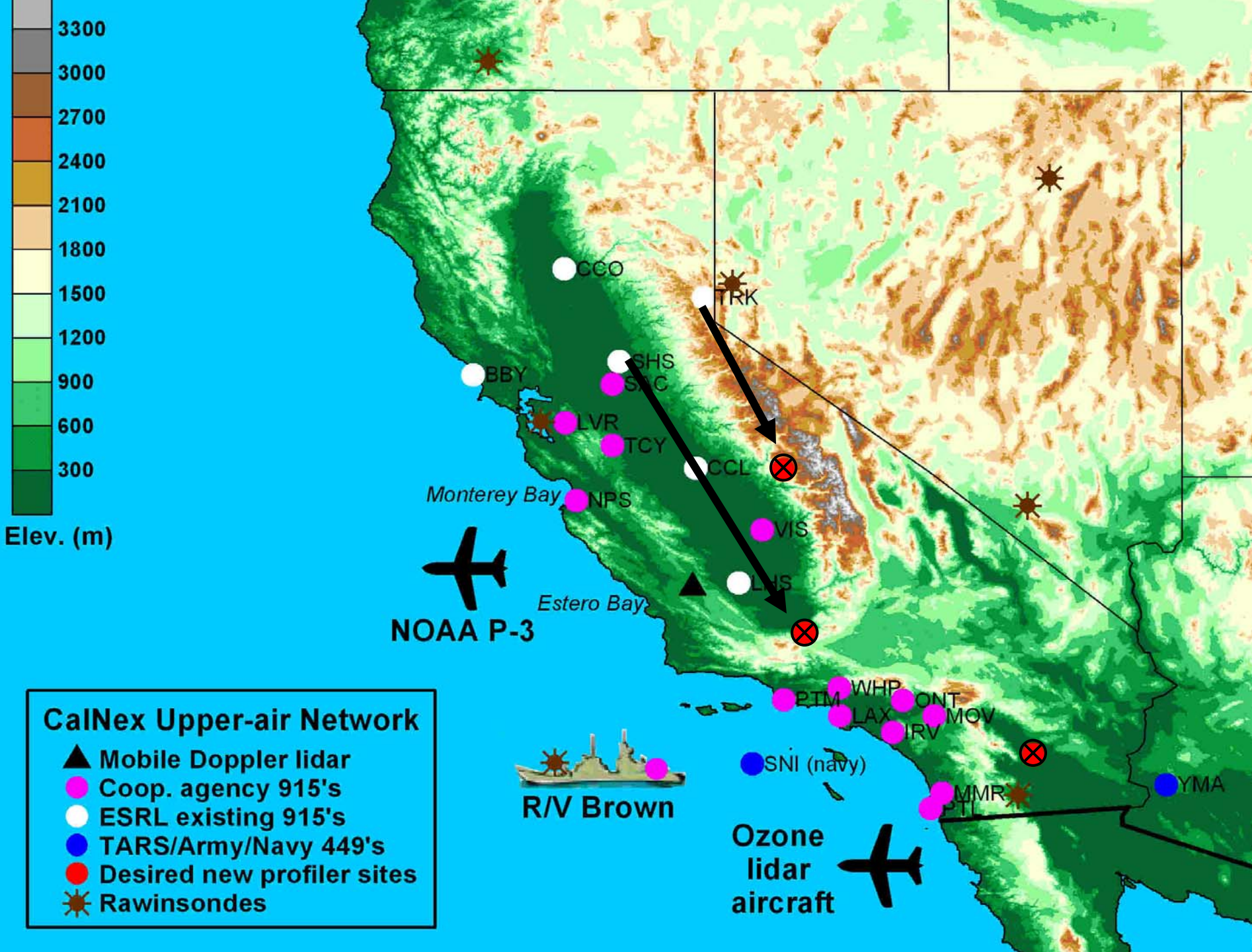
# CalNex 2010 Profiler Network And Transport Issues

**Jim Wilczak**  
**NOAA/Earth Systems Research Laboratory**

5 February 2009



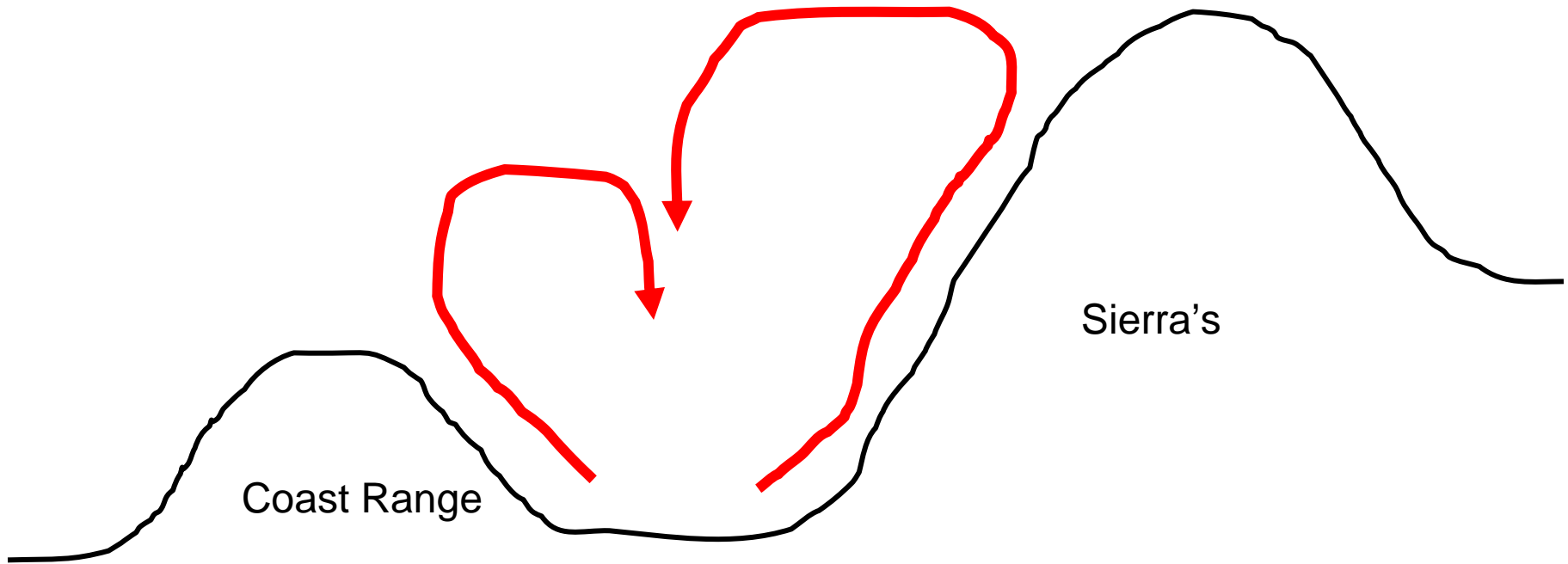




# CalNex Transport

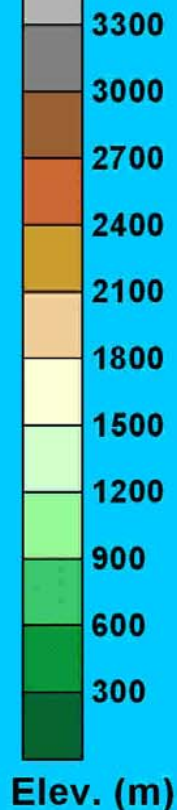
- **Coastal/Sierra mountain circulations**
  - ventillation and recirculation
  - return circulation along Sierra's
- **Interbasin transport, especially between the LA basin and Central Valley**
- **Off-shore recirculation in southerly surge event**
- **Longer range transport**
  - from Asia
  - to/from Mexico
  - outflow from California to downwind states

# Ventilation and recirculation?





# Recirculation along slopes of Sierras?



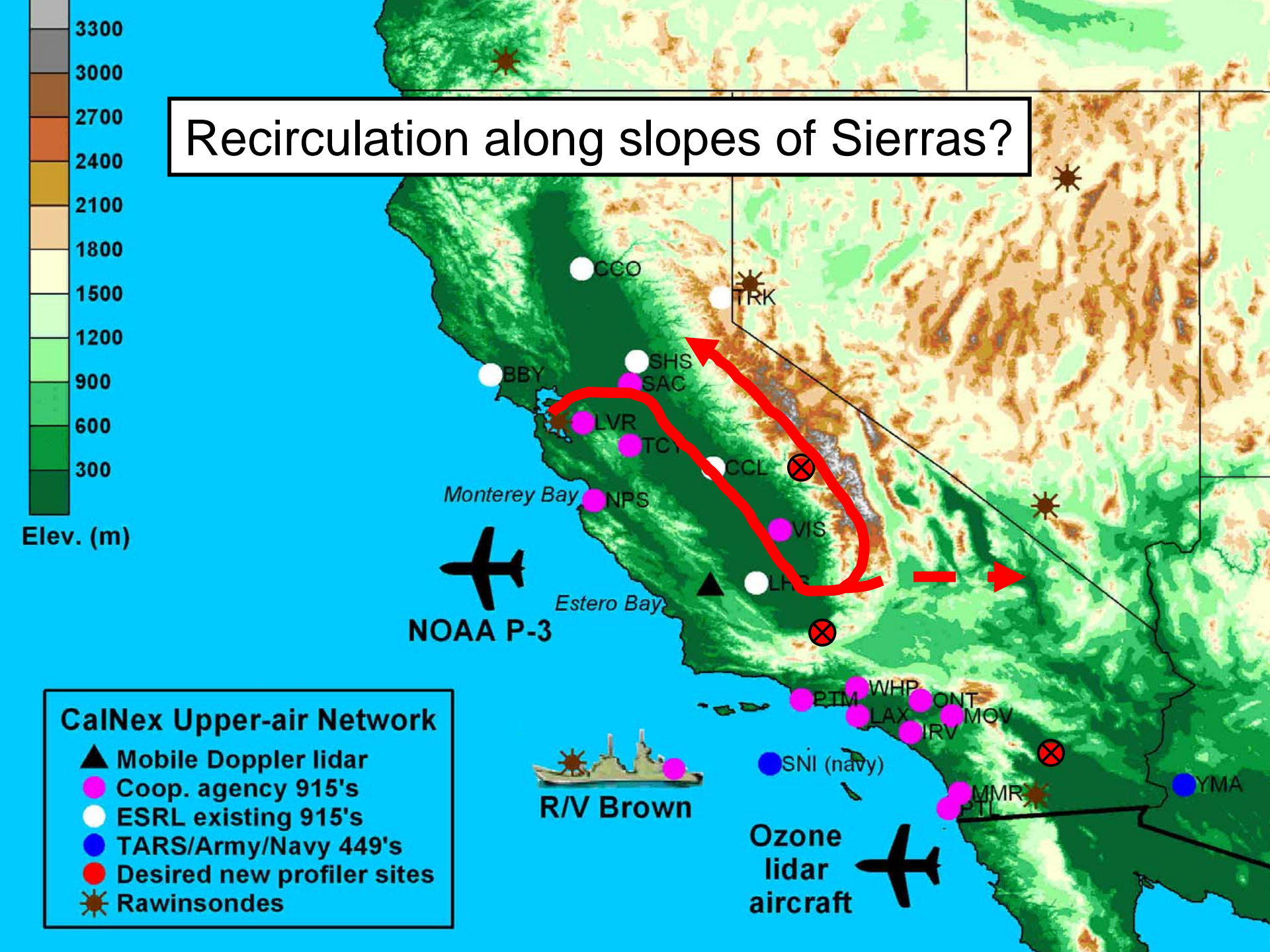
NOAA P-3

## CalNex Upper-air Network

- ▲ Mobile Doppler lidar
- Coop. agency 915's
- ESRL existing 915's
- TARS/Army/Navy 449's
- Desired new profiler sites
- ★ Rawinsondes

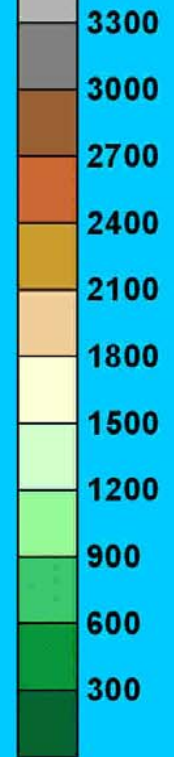


Ozone  
lidar  
aircraft





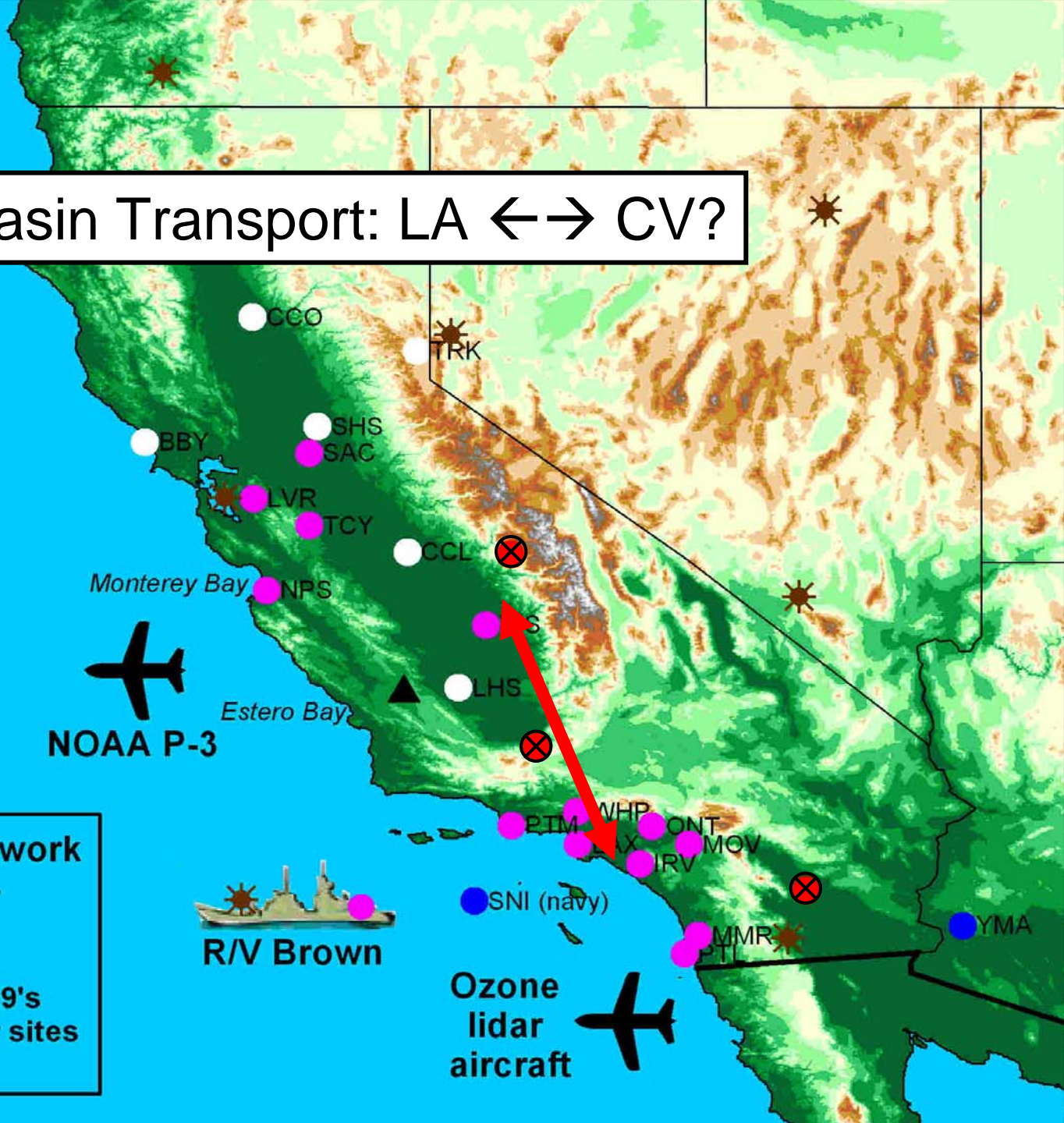
# Interbasin Transport: LA $\leftrightarrow$ CV?



Elev. (m)



- ### CalNex Upper-air Network
- ▲ Mobile Doppler lidar
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  - ESRL existing 915's
  - TARS/Army/Navy 449's
  - Desired new profiler sites
  - ★ Rawinsondes

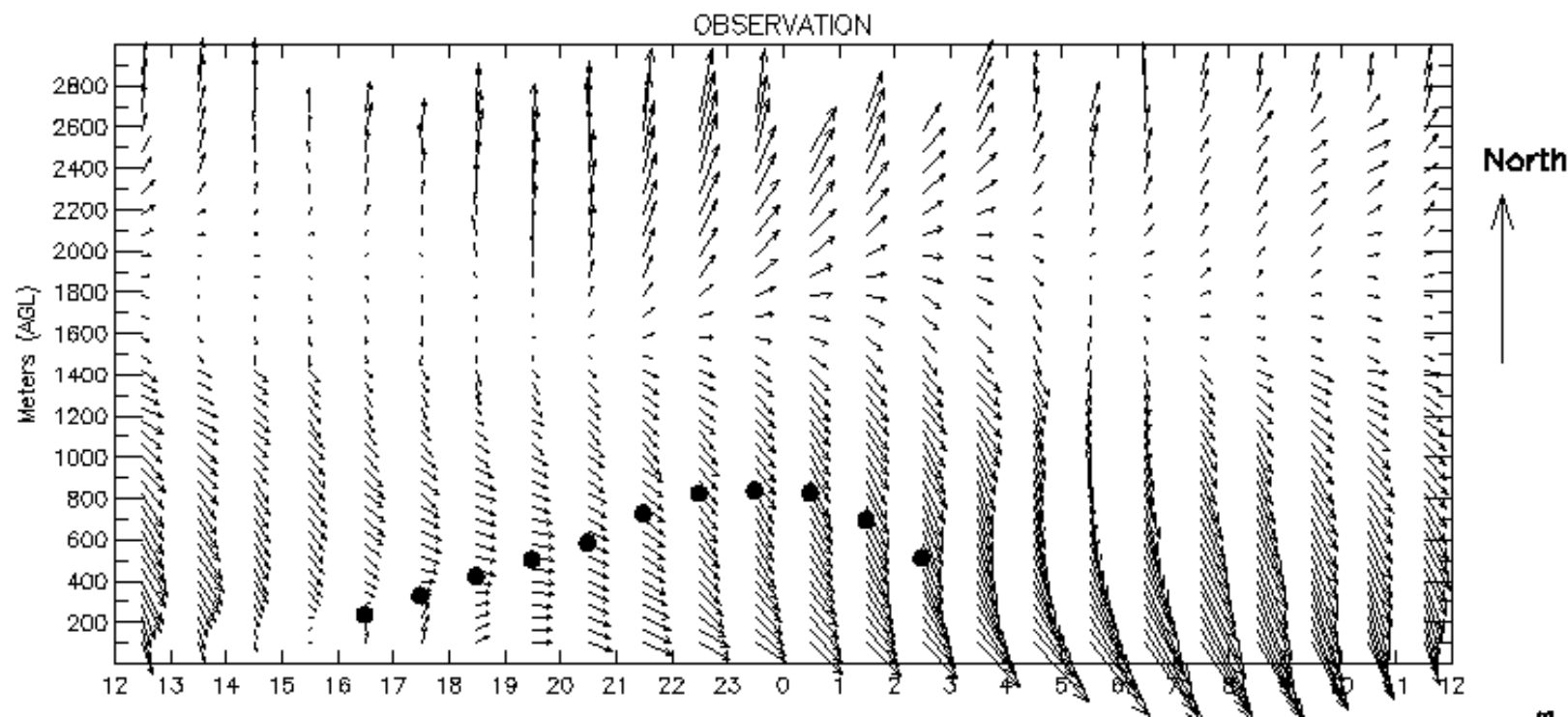


SJV

NOAA/ESRL/PSD

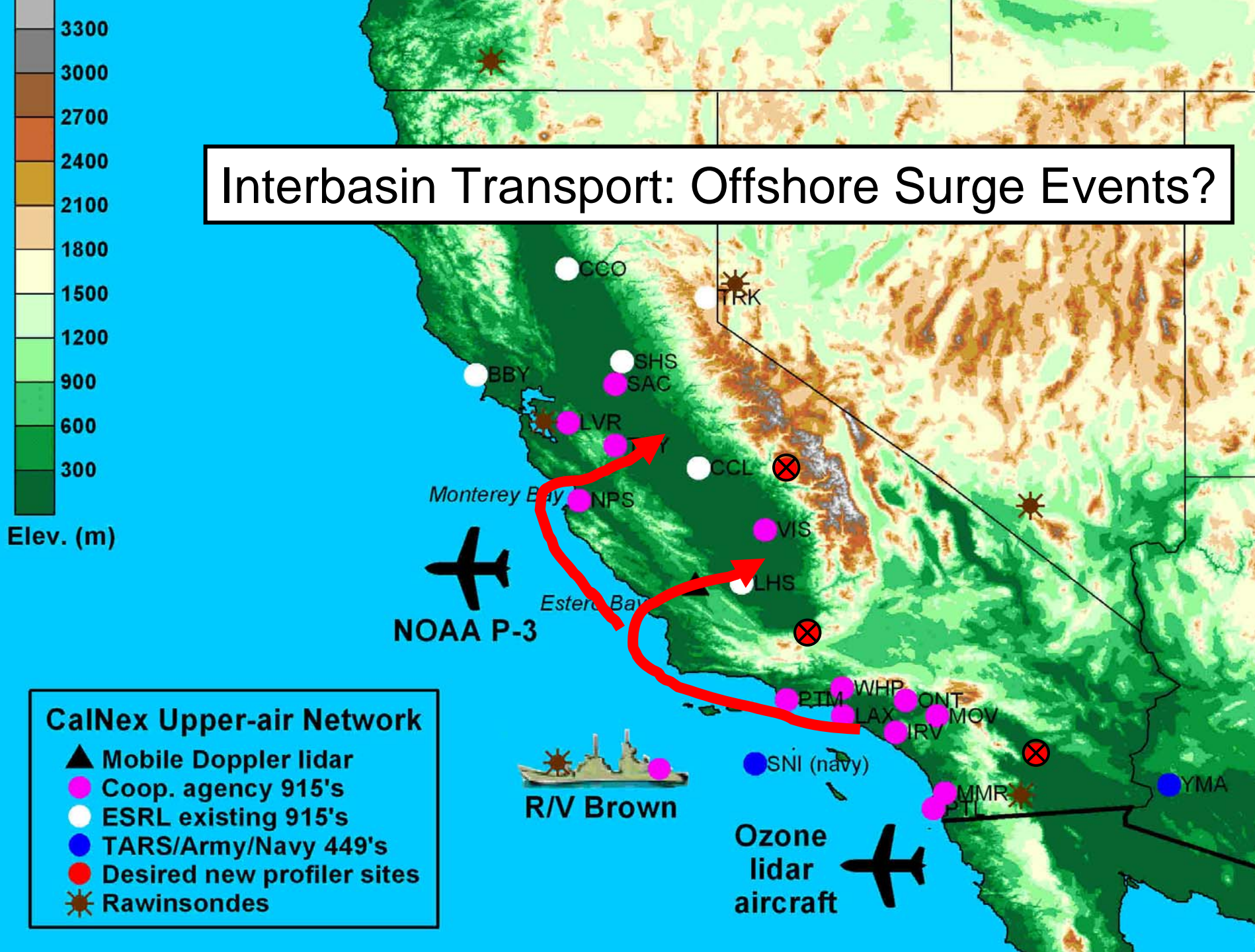
AVERAGED WIND VECTOR

JUN-01-00 : SEP-30-00



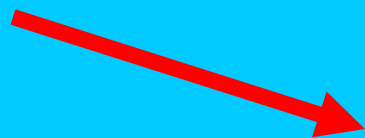
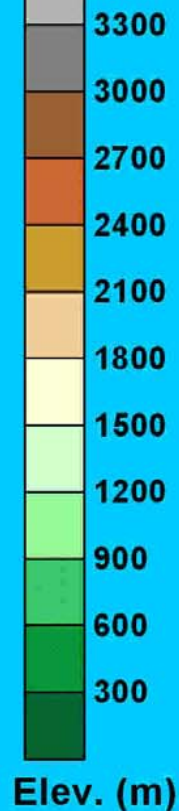


# Interbasin Transport: Offshore Surge Events?





# Long Range Transport: Asia?



NOAA P-3

R/V Brown

Ozone  
lidar  
aircraft

## CalNex Upper-air Network

- ▲ Mobile Doppler lidar
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- TARS/Army/Navy 449's
- Desired new profiler sites
- ★ Rawinsondes

Monterey Bay

Estero Bay

CCO

TRK

SHS

SAC

LVR

TCY

CCL

NPS

VIS

LHS

PTM

WHP

LAX

ONT

MOV

IRV

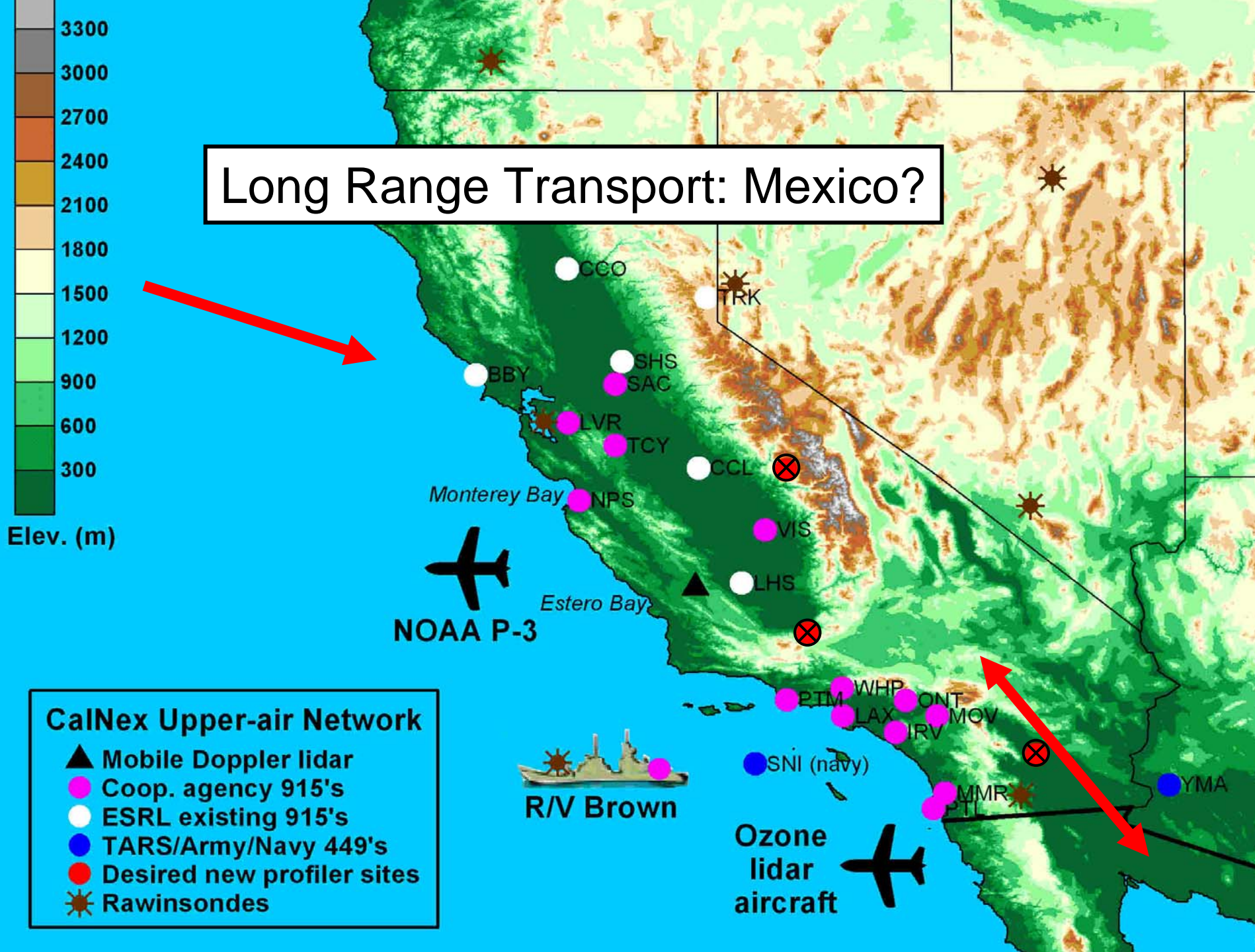
MMR

PTI

YMA



# Long Range Transport: Mexico?





# Long Range Transport: Outflow?

